

INTEX-B Planning Meeting at Boulder, Colorado, October 24-28, 2005

Forecast and Analysis of Aerosol Distribution and Transport Using MODIS Near Real Time and Geostationary Satellite Measurements and Trajectory Model

PI: D. Allen Chu

Summary of the proposed tasks:

1. At source and near source MODIS aerosol optical depth products from direct broadcast measurements to monitor dust outbreak (e.g., Mongolia and China) and biomass burning events (e.g., Southeast Asia)
2. GOES-Asia measurements to better monitor the evolution of dust transport at high (e.g., 1-hour) temporal resolution
3. At source and near source lidar measurements (e.g., Beijing, China; Seoul, South Korea; Taipei, Taiwan) to better initiate forward trajectory model for 24 to 48-hour forecasts or to verify model forecasts
4. MODIS aerosol height index combined with CALIPSO lidar measurements (if available) to provide aerosol layer height at nadir and also across the MODIS swath (2,330 km)

Note:

- MODIS DB sites definitely include Beijing (China), Taipei (Taiwan) and may include Anchorage (Alaska), and Hawaii (under negotiation)
- Terra (10:30 a.m.) and Aqua (1:30 p.m.) MODIS measurements are planned to derive aerosol optical depth
- GOES-Asia sand index products may be used to enhance the interpretation of dust transport in outbreak events
- MODIS aerosol height index would be less accurate without CALIPSO